

NOTE

Note on the Habitat of *Pterostichus (Pseudomaseus) tenuis* (Casey)
(Coleoptera: Carabidae) with Six New State Records

The carabid species *Pterostichus (Pseudomaseus) tenuis* (Casey) was recently re-described and removed from synonymy with *P. luctuosus* (Dejean) (Bousquet, Y. and J. G. Pilon, 1983. Redescription of *Pterostichus (Pseudomaseus) tenuis* (Casey), a valid species (Coleoptera: Carabidae). *Coleopterists Bulletin* 37: 389–396). The authors included range maps and listed the states and provinces from which they had seen specimens (in Canada: Alberta, Manitoba, Ontario, Quebec, Nova Scotia, Newfoundland; in the United States: Colorado, Illinois, Michigan, New York, New Hampshire, Maine, Massachusetts, Rhode Island, New Jersey). They were not, however, aware of any differences in habitat between the two species. They noted that *P. luctuosus* is a marsh species and speculated that the habitat of *P. tenuis* might be the same. Most of the specimens of the latter collected by the authors were taken in hibernation under rocks and logs in a deciduous forest near a large marsh. In a later paper (Bousquet Y. 1985. Morphologie comparée des larves de Pterostichini (Coleoptera: Carabidae): descriptions et tables de déterminations des espèces du Nord-est de l'Amérique du Nord. *Le Naturaliste Canadien* 112: 191–251), Bousquet repeated these observations and stated that the precise habitat of *P. tenuis* remained to be discovered.

Although diagnostic differences between *P. tenuis* and *P. luctuosus* were not widely known until recently (Bousquet and Pilon 1983), I had been aware of them for many years through conversations with Yves Bousquet. Specimens from different localities and habitats were therefore kept carefully segregated and labelled. These specimens verify that *Pterostichus luctuosus* is a marsh species occurring in a variety of wet-

land habitats, a fact also noted by Larochelle (Larochelle, A. 1975. Les Carabidae du Québec et du Labrador. *Bulletin de la Département de Biologie du Collège Bourget*, Rigaud 1: 1–155). The sixty or so specimens of *P. tenuis* (collected at thirteen localities in six states) indicate that this species has a much more limited habitat and is probably found exclusively in *Sphagnum*.

All of the specimens of *Pterostichus tenuis* listed below were taken by treading *Sphagnum*, both in large bogs and in smaller, more isolated patches. In Pine Swamp on the Maryland-West Virginia border, beetles were taken from several small (ten square feet) patches of *Sphagnum* on the wet grassy shores of a pond. Other carabid species abundant in the *Sphagnum* were *Agonum mutatum* G. & H. and *Pterostichus patruelis* (Dejean). At the Linn Run State Park in Pennsylvania, *Pterostichus tenuis* was taken in a large open bog with sundews (*Drosera*) and pitcher plants (*Sarracenia purpurea*), again in the company of *Agonum mutatum* and *Pterostichus patruelis*. The specimens of *P. tenuis* from Shelburne Pond, Vermont, were taken in a similar large open bog, along with specimens of *Agonum darlingtoni* Lindroth (a bog species). In no instances were *Pterostichus tenuis* and *P. luctuosus* taken together, though this should be expected to occur occasionally. The areas of *Sphagnum* preferred by *P. tenuis* are often very close to marsh habitats preferred by *P. luctuosus*.

There follows a detailed list of new localities and dates of collection of *Pterostichus tenuis*. Specimens were collected by me unless otherwise indicated. They are deposited in the Carnegie Museum of Natural History, except the Ohio specimens (Harry J. Lee private collection) and the Wisconsin specimens collected by Walter Suter (Rob-

ert C. Graves private collection). Collector and number of specimens are listed in parentheses after each date. All specimens were collected by treading *Sphagnum*. These localities represent six new state records not included in Bousquet and Pilon (1983). Canaan Mountain at Canaan Heights, West Virginia, is the southernmost locality in the eastern United States from which *P. tenuis* has thus far been collected. I thank Dr. Robert E. Acciavatti for his efforts in collecting the West Virginia specimens and Dr. John E. Rawlins for suggestions and improvements on this paper.

MARYLAND. Garrett Co.: Pine Swamp, 2 km. SE Cranesville (West Virginia), July 6, 1986 (Acciavatti & Davidson, 8).

OHIO. Ashtabula Co.: Grand River Terraces, Morgan Township, September 27, 1987 (Lee, 2).

PENNSYLVANIA. Westmoreland Co.: Linn Run State Park, 10 km. SE Rector, July 27, 1981 (11), May 13, 1984 (1), July 24, 1986 (2).

VERMONT. Addison Co.: 2 km. N. Starksboro, July 19, 1977 (1). Chittenden

Co.: Colchester Bog, May 30, 1976 (1); Shelburne Pond, Shelburne, April 14, 1974 (4), April 12, 1975 (3), April 22, 1975 (2), July 4, 1975 (2). Franklin Co.: Fletcher, June 22, 1975 (1). Grand Isle Co.: Isle la Motte, June 18, 1975 (1).

WEST VIRGINIA. Tucker Co.: Backbone Mountain, 6 km. N. Hendricks, 975 m, August 15, 1986 (Acciavatti, 5); 1.5 km. NW Canaan Heights, 1130 m, August 11, 1986 (Acciavatti, 1); Canaan Mountain at Canaan Heights, 1130 m, July 29, 1986 (Acciavatti, 6).

WISCONSIN. Kenosha Co.: Van Halter Bog, Silver Lake, Salem, September 9, 1972 (Suter, 1), June 20, 1974 (Suter, 2), June 21, 1975 (Suter, 1). Racine Co.: Kneeland Bog, April 23, 1966 (Suter, 1); King Bog, 5 km. SW Dover, October 23, 1970 (Suter, 1), August 11, 1971 (Suter, 1).

Robert L. Davidson, *Section of Invertebrate Zoology, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, Pennsylvania 15213.*